

Date: Sat, 4 Jun 94 04:30:14 PDT  
From: Ham-Ant Mailing List and Newsgroup <ham-ant@ucsd.edu>  
Errors-To: Ham-Ant-Errors@UCSD.Edu  
Reply-To: Ham-Ant@UCSD.Edu  
Precedence: Bulk  
Subject: Ham-Ant Digest V94 #169  
To: Ham-Ant

Ham-Ant Digest                      Sat, 4 Jun 94                      Volume 94 : Issue 169

Today's Topics:

                    Antennas on Indy Cars  
                    Balun question  
                    Dipole help  
                    Opinion on Alpha-Delta SWL sloper  
                    stationmaster radomes wear out!  
                    Vertical antenna mathematical modeling  
                    VHF/UHF Antennas on Jeep (2 msgs)  
                    Want to hear your experience with AEA Isoloop.

Send Replies or notes for publication to: <Ham-Ant@UCSD.Edu>  
Send subscription requests to: <Ham-Ant-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Ant Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-ant".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

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Date: 3 Jun 1994 13:51:34 GMT  
From: ihnp4.ucsd.edu!library.ucla.edu!europa.eng.gtefsd.com!news.msfc.nasa.gov!  
news.larc.nasa.gov!sirius.larc.nasa.gov!jcc@network.ucsd.edu  
Subject: Antennas on Indy Cars  
To: ham-ant@ucsd.edu

I was whatching the Indy 500 and noticed that most of the cars had little antennas  
on them. I guess for communications, data telem, and video.

Can anyone tell me more about these systems.

Thanks,  
Jeff Case

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Date: Fri, 3 Jun 1994 13:30:31 GMT  
From: world!dts@uunet.uu.net  
Subject: Balun question  
To: ham-ant@ucsd.edu

In article <2sl2du\$3m@chnews.intel.com> cmoore@ilx018.intel.com (Cecil A. Moore -FT-~) writes:

>smithson@ACM.ORG wrote:

>

>: I have an 80m dipole with a Van Gordon 1:1 balun at the feed point, with

>: Brian n8wrl (soon to be /ag)

>

>Hello again, Brian. I forgot to ask what is the power rating of your Van

>Gordon balun and how much power are you running?

>

>Also, a balun that has low DC resistance bleeds static electricity off

>the antenna which is a very good feature in my extremely high static

Some balun designs do this.

>electricity environment here in Arizona. When I used to run a G5RV with

>a choke balun, I could hear arcing inside my transceiver because of

>static electricity on the antenna.

Another approach to bleeding off the static, especially if you are using a choke balun, is to use a non-DC-passive lightning/surge protector. I use ones made by Industrial Communications Engineers. Basically they contain a capacitor to conduct the RF signal across, a coil from the antenna side to ground (and shield) to bleed off the static, and a gas discharge tube from center to ground, just in case the lightning gets near... Polyphaser makes similar units.

I have had very good luck with current baluns formed from a number of ferrite cores placed around the coax at or near the feedpoint. I use this approach on antennas with properly matched feedpoints as well, and it does seem to help cut the amount of RF wandering down the feedlines. I have at times also placed ferrites on the coax lines in or near the shack as well, further reducing the likelihood of RF coming back into the shack on the shields.

Dan N1JEB

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Compuserve: 74176,1347



Terry Florek WB9QDM  
AT&T Consumer Products Labs, Indianapolis, Indiana

Check out the RDI White Paper "RDI Evaluates popular outdoor antennas". The paper covers the Alpha-Delta sloper, Eavesdropper and some homemade Inverted-L antennas. The paper concludes "Sloper provides excellent and unusually flexible performance at a price well within the reach of the fastidious listener...". The paper speaks very highly of the antenna.

-= stan sscalsk@relay.nswc.navy.mil

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Date: 3 Jun 1994 14:49:05 GMT  
From: ihnp4.ucsd.edu!swrinde!howland.reston.ans.net!news.cac.psu.edu!  
news.pop.psu.edu!psuvax1!news.cc.swarthmore.edu!netnews.upenn.edu!  
eniac.seas.upenn.edu!depolo@network.ucsd.edu  
Subject: stationmaster radomes wear out!  
To: ham-ant@ucsd.edu

In article <duffyfr-020694215700@134.174.41.129> duffyfr@a1.tch.harvard.edu (Frank H. Duffy, M.D.) writes:

>I recently asked for help to figure out why two Sinclair stationmaster  
>repeater antennas(2M & 220) had both developed hi SWR and were leaking  
>water down into the pigtail. Well, we recently removed the two antennas  
>and they both showed the same incredible finding. The outer shiny white  
>plastic coating of the radome was completely gone. The middle layer of  
>fiberglass wrapping was exposed! Looks like 4 years of central Vermont  
>wind at just under 2000'(both top mounted) had sufficient abrasive strength  
>to strip off the outer protective coat and allow water in! I had never  
>heard of this. Does this happen at all repeater sites? Is the Sinclair  
>radome not as strong as other radomes (Celwave, etc)?

We have a 10dB UHF Sinclair on top of one of the high rises here in Philadelphia. It's been up since 1985, and has basically no paint left, and the fiberglass is starting to fray. I've been unhappy with the antenna for this reason, and for other reasons.

I also have a Phelps-Dodge PD455 SuperStationmaster on top of an adjacent building (three buildings, all same height). It's been up since 1978 and is in much better shape than the Sinclair. I also have a PD455 on top of a mountain outside of Philadelphia, and a PD400 on top of a mountain in the central part of the state and have had no problems with them whatsoever. I've also had good luck with DB Products sticks, although I understand that they won't cut ham-band antennas any more (they only pre-cut the commercial bands).

I'll stick with Celwave. I've had miserable experience with Sinclair

and Antenna Specialists, and generally poor results with Diamond and Comet antennas. The Diamond and Comet antennas performed well, but did not hold up on the mountaintops, and weren't DC grounded at the tips.

Depending on how bad your stick is, you may or may not be able to salvage it. I use a plastic marine paint to re-paint old sticks. I don't remember the name, but it wasn't cheap. It's intended to be used on fiberglass, and has no metal content. I've heard of other techniques, but I've had good luck with this paint.

--- Jeff

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Jeff DePolo WN3A Twisted Pair: (215) 337-7383H 387-3059W  
depolo@eniac.seas.upenn.edu RF: 443.800+ MHz 442.400+ MHz 24.150 GHz

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Date: Fri, 3 Jun 1994 18:01:14 GMT  
From: ihnp4.ucsd.edu!dog.ee.lbl.gov!agate!howland.reston.ans.net!  
news.moneng.mei.com!uwm.edu!mixcom.com!kevin.jessup@network.ucsd.edu  
Subject: Vertical antenna mathematical modeling  
To: ham-ant@ucsd.edu

Anyone know of any PC compatible software for mathematical modeling of vertical antennas? I'm looking for radiation patterns, SWR across frequency range, the works. Also, any recommendations and text books with detailed math on the theory behind antenna radiation would help as well.

Please reply via Email. Thanks. 73.

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/`- _	kevin.jessup@mixcom.com		Vote Libertarian!
{	}		
\	/		Call 1-800-682-1776
__*	N9SQB @ WA9POV.#MKE.WI.USA.NA		for more information.

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Date: 3 Jun 1994 15:17:28 GMT  
From: ihnp4.ucsd.edu!usc!math.ohio-state.edu!magnus.acs.ohio-state.edu!csn!  
col.hp.com!fc.hp.com!news.lvld.hp.com!scott@network.ucsd.edu  
Subject: VHF/UHF Antennas on Jeep  
To: ham-ant@ucsd.edu

I'm looking for anyone's experiences in mounting 2m, 440 and/or dual band antennas on CJ's or Wranglers. This particular Wrangler will be a

hard top, but the top will come off for summers so a roof mount with some sort of ground plane installed underneath is out. I plan on installing a dual band mobile in the Jeep. Any experiences with what worked and what didn't for both antenna type and mount/location on this sort of vehicle with this kind of rig would be greatly appreciated.

Scott Turner KG0MR scott@hpsla.LVLD.HP.COM

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Date: 3 Jun 94 23:47:32 GMT  
From: dog.ee.lbl.gov!ihnp4.ucsd.edu!usc!sdd.hp.com!col.hp.com!  
bobw@ucbvax.berkeley.edu  
Subject: VHF/UHF Antennas on Jeep  
To: ham-ant@ucsd.edu

Scott Turner (scott@lvld.hp.com) wrote:  
: I'm looking for anyone's experiences in mounting 2m, 440 and/or dual  
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: Scott Turner KG0MR scott@hpsla.LVLD.HP.COM

If a ground plane is problem, try using antennas that don't require a ground plane such as a 1/2 wave. Larson makes a 1/2 wave 2 Meter antenna, Diamond makes a dual-band antenna that is 1/2 wave on 2M and stacked 5/8 waves on 70 cm.

Bob Witte / bobw@col.hp.com / Hewlett Packard PMO / KB0CY / (719) 590-3230

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Date: Fri, 3 Jun 1994 12:24:58 GMT  
From: ihnp4.ucsd.edu!library.ucla.edu!csulb.edu!csus.edu!netcom.com!  
greg@network.ucsd.edu  
Subject: Want to hear your experience with AEA IsoLoop.  
To: ham-ant@ucsd.edu

In article <CqruHF.M36@Cadence.COM> pmohan@cadence.com writes:  
>Hello:  
>I am presently considering buying an AEA IsoLoop for HF. Does someone here  
>have experience with this antenna? Please let me know about the effectiveness

>of this antenna for HF, if used in an apartment balcony on the third floor.

Mine was in the attic of the second floor, probably the equivalent height, and the structure was wood.

The effectiveness is beyond your wildest dreams. It is close to the ideal antenna for the urbanite, as it also does a fine job of NOT receiving the broadband noise which is characteristic of such surroundings.

BTW, if it's on the balcony, you must make sure that nobody can touch it. It's a voltage antenna, and the RF burns will be painful and severe.

The standard tuning device is worse than useless IMHO. The deluxe automatic tuner has gotten mixed reviews, but is probably better. Mine was in use prior to that, and rather than trying to tune for peak noise, I used the cheapest MFJ SWR analyzer on a coax switch, zero-beated the analyzer signal with the desired frequency in the station receiver, then set the loop for 1:1 SWR. All this took less time than it takes to write it down.

Greg

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Date: 3 Jun 94 17:18:05 GMT  
From: ihnp4.ucsd.edu!dog.ee.lbl.gov!agate!howland.reston.ans.net!math.ohio-state.edu!cyber2.cyberstore.ca!nntp.cs.ubc.ca!alberta!atha!aupair.cs.athabascau.ca!rwa@network.ucsd.edu  
To: ham-ant@ucsd.edu

References <2sgmee\$9tv@chnews.intel.com>, <2sibk7\$oobo@ornews.intel.com>,  
<2sim2s\$g2q@netnews.upenn.edu>n  
Subject : Re: Grid Dip Oscillator or Noise Bridge?

depolo@eniac.seas.upenn.edu (Jeff DePolo) writes:

>The MFJ noise bridge isn't too bad, but it isn't great either. The  
>lettering on the front panel corresponds to values hand-written on  
>the bottom of the unit. It takes a lot of good guessing to really  
>know what you're reading on the dials. Quality is about the same  
>as other MFJ stuff - mediocre at best.

You can get some (say) 5% carbon resistors and make your own R scale markings that will be at least as good as the factory ones :).

regards,  
Ross ve6pdq

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End of Ham-Ant Digest V94 #169

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